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<sup>3</sup> Within the range of 7.0 to 10.0 at all times.

(d) Grinding Scrubber Operations. No discharge of process wastewater pollutants to navigable waters.

#### (e) Investment Casting.

#### **BPT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property | Maximum for any 1 day  Maximum monthly a age               |      |  |
|---------------------------------|--|------|--|
|                                 | kg/1,000 kkg (pounds per<br>million pounds) of metal poure |      |  |
|                                 |  |      |  |
| Copper (T)                      | 8.48   | 4.63 |  |
| Lead (T)                        | 8.7  | 4.3  |  |
| Zinc (T)                        | 12.6   | 4.74 |  |
| Oil and grease                  | 330  | 110  |  |
| TSS                             | 419  | 165  |  |
| pH                              | (1)  | (1)  |  |

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

|                | Maximum<br>for any 1<br>day | Maximum for monthly average | Annual<br>average 1 |
|----------------|-----------------------------|-----------------------------|---------------------|
|                | (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>         |                     |
| Copper (T)     | 0.77                        | 0.42                        | 1.87                |
| Lead (T)       | 0.79                        | 0.39                        | 2.42                |
| Zinc (T)       | 1.14                        | 0.43                        | 2.97                |
| Oil and grease | 30                          | 10                          | 55.1                |
| TSS            | 38                          | 15                          | 110                 |
| pH             | ( <sup>3</sup> )            | ( <sup>3</sup> )            | ( <sup>3</sup> )    |
|                |                             |                             |                     |

¹kg/1,000 kkg (pounds per million pounds) of metal poured.
²These concentrations must be multiplied by the ratio of (1,320/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 pounds of metal poured) for a specific plant.
³Within the range of 7.0 to 10.0 at all times.

#### (f) Melting Furnace Scrubber Operations.

### **BPT EFFLUENT LIMITATIONS**

| Maximum for any 1 day  Maximum monthly a age |  |
|--|--|
| kg/62.3 million S<br>billion SCF) o          |  |
| 1 01   | 0.988  |
| 1.01   | 0.900  |
| 1.86   | 0.918  |
| 2.68   | 1.01   |
| 2.02   | 0.706  |
| 70.6   | 23.5   |
| 89.4   | 35.3   |
| (1)  | (1)  |
|  | any 1 day  kg/62.3 million S billion SCF) o  1.81 1.86 2.68 2.02 70.6 89.4 |

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

|                | Maximum<br>for any 1<br>day | Maximum for monthly average | Annual average <sup>1</sup> |
|----------------|-----------------------------|-----------------------------|-----------------------------|
|                | (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>         |                             |
| Copper (T)     | 0.77                        | 0.42                        | 0.4                         |
| Lead (T)       | 0.79                        | 0.39                        | 0.518                       |
| Zinc (T)       | 1.14                        | 0.43                        | 0.635                       |
| Total phenols  | 0.86                        | 0.3                         | 0.467                       |
| Oil and grease | 30                          | 10                          | 11.8                        |
| TSS            | 38                          | 15                          | 23.5                        |
| pH             | (3)                         | (3)                         | (3)                         |

<sup>1</sup> kg/62.3 million Sm3 (pound per billion SCF) of air scrubbed.

# (g) Mold Cooling Operations.

# **BPT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property                         | Maximum for any 1 day                                      | Maximum for monthly average             |  |
|---|--|---|--|
|   | kg/1,000 kkg (pounds per<br>million pounds) of metal poure |   |  |
| Copper (T)  Lead (T)  Zinc (T)  Oil and grease  TSS  pH | 0.392<br>0.402<br>0.58<br>15.3<br>19.3                     | 0.214<br>0.199<br>0.219<br>5.09<br>7.63 |  |

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

| Maximum<br>for any 1<br>day | Maximum<br>for monthly<br>average                       | Annual average <sup>1</sup>   |
|-----------------------------|---|---|
| (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>                                     |   |
| 0.77                        | 0.42  | 0.0865  |
| 0.79                        | 0.39  | 0.112   |
| 1.14                        | 0.43  | 0.137   |
| 30                          | 10  | 2.54  |
| 38                          | 15  | 5.09  |
| (3)                         | (3)   | (3)   |
|                             | for any 1 day  (mg/l) <sup>2</sup> 0.77 0.79 1.14 30 38 | for any 1 day for monthly average (mg/l) <sup>2</sup> (mg/l) <sup>2</sup> 0.77 0.42 0.79 0.39 1.14 0.43 30 10 38 15 |

¹kg/1,000 kkg (pounds per million pounds) of metal poured.
²These concentrations must be multiplied by the ratio of (61/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 pounds of metal poured) for a specific plant.
³Within the range of 7.0 to 10.0 at all times.

[50 FR 45247, Oct. 30, 1985; 51 FR 21760, June 16, 1986]

# § 464.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology

<sup>&</sup>lt;sup>2</sup>These concentrations must be multiplied by the ratio of (0.282/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 SCF of air scrubbed) for a generation of the scrubbed of t specific plant.

<sup>3</sup> Within the range of 7.0 to 10.0 at all times.

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economically achievable, except that non-continuous dischargers shall not be subject to the maximum day and maximum for monthly average mass (kg/1,000 kkg or lb/million lb of metal poured; kg/62.3 million Sm<sup>3</sup> or lb/billion SCF of air scrubbed) effluent limitations for copper, lead, zinc, and total phenols. For non-continuous discharges, annual average mass limitations and maximum day and maximum for monthly average concentration (mg/l) limitations shall apply. Concentration limitations and annual average mass limitations shall only apply to non-continuous dischargers.

#### (a) Casting Quench Operations.

#### **BAT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property | Maximum<br>for any 1<br>day                                | Maximum<br>for monthly<br>average |
|---------------------------------|--|-----------------------------------|
|                                 | kg/1,000 kkg (pounds p<br>million pounds) of met<br>poured |                                   |
| Copper (T)                      | 0.0307   | .0168                             |
| Lead (T)                        | 0.0211   | .0104                             |
| Zinc (T)                        | 0.0303   | .0116                             |

|            | Maximum<br>for any 1<br>day | Maximum<br>for<br>monthly<br>average | Annual av-<br>erage <sup>1</sup> |
|------------|-----------------------------|--------------------------------------|----------------------------------|
|            | (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>                  |                                  |
| Copper (T) | 0.77                        | 0.42                                 | 0.0068                           |
| Lead (T)   | 0.53                        | 0.26                                 | 0.006                            |
| Zinc (T)   | 0.76                        | 0.29                                 | 0.0072                           |

<sup>&</sup>lt;sup>1</sup> kg/1,000 kkg (pounds per million pounds) of metal poured. <sup>2</sup>These concentrations must be multiplied by the ratio of (4.8/x) where x is the actual normalized process waste-water flow (in gallons per 1,000 pounds of metal poured) for a specific plant.

# (b) Direct Chill Casting Operations.

#### **BAT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property | Maximum<br>for any 1<br>day                                 | Maximum for monthly average |  |
|---------------------------------|---|-----------------------------|--|
|                                 | kg/1,000 kkg (pounds per m<br>lion pounds) of met<br>poured |                             |  |
| Copper (T)  Lead (T)  Zinc (T)  | 0.928<br>0.639<br>0.916                                     | 0.506<br>0.314<br>0.35      |  |

|                                    | Maximum<br>for any 1<br>day | Maximum<br>for<br>monthly<br>average | Annual<br>average <sup>1</sup> |
|------------------------------------|-----------------------------|--------------------------------------|--------------------------------|
|                                    | (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>                  |                                |
| Copper (T)<br>Lead (T)<br>Zinc (T) | 0.77<br>0.53<br>0.76        | 0.42<br>0.26<br>0.29                 | 0.205<br>0.181<br>0.217        |

<sup>1</sup> kg/1,000 kkg (pounds per million pounds) of metal poured.
2 These concentrations must be multiplied by the ratio of (145/x) where x is the actual normalized process waste-water flow (in gallons per 1,000 pounds of metal poured) for a specific plant.

# (c) Dust Collection Scrubber Operations.

#### **BAT EFFLUENT LIMITATIONS**

| Maximum for any 1 day   | Maximum for monthly average  |  |
|---|--|--|
| kg/62.3 million Sm³ (pounds pounds pounds pounds) of air scrubbed |  |  |
| 0.553<br>0.38<br>0.545<br>0.617                                   | 0.301<br>0.187<br>0.208<br>0.215   |  |
|   | any 1 day<br>kg/62.3 million 5<br>billion SCF) o<br>0.553<br>0.38<br>0.545 |  |

|   | Maximum<br>for any 1<br>day                         | Maximum for monthly average                        | Annual<br>average <sup>1</sup>   |
|---|---|--|----------------------------------|
| Copper (T)  Lead (T)  Zinc (T)  Total phenols | (mg/l) <sup>2</sup><br>0.77<br>0.53<br>0.76<br>0.86 | (mg/l) <sup>2</sup><br>0.42<br>0.26<br>0.29<br>0.3 | 0.122<br>0.108<br>0.129<br>0.144 |

<sup>&</sup>lt;sup>1</sup>kg/62.3 million Sm<sup>3</sup> (pounds per billion SCF) of air

## (d) Grinding Scrubber Operations. No discharge of process wastewater pollutants to navigable waters.

# (e) Investment Casting.

# **BAT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property |               |   | mum for<br>1 day  | Maximum for monthly average |                                |
|---------------------------------|---------------|---|-------------------|-----------------------------|--------------------------------|
|                                 |               | kg/1000 kkg (pounds per millio<br>pounds) of metal poured |                   |                             |                                |
| Copper (T)                      |               |   | 8.48              |                             | 4.63                           |
| Lead (T)                        |               |   | 5.84              | 2.86                        |                                |
| Zinc (T)                        |               |   | 8.37              |                             | 3.19                           |
|                                 |               |   |                   |                             |                                |
|                                 | Maxi<br>for a |   | Maximu<br>for mon | thly                        | Annual<br>average <sup>1</sup> |

|                                    | Maximum<br>for any 1<br>day                 | Maximum for monthly average                 | Annual<br>average <sup>1</sup> |
|------------------------------------|---|---|--------------------------------|
| Copper (T)<br>Lead (T)<br>Zinc (T) | (mg/l) <sup>2</sup><br>0.77<br>0.53<br>0.76 | (mg/l) <sup>2</sup><br>0.42<br>0.26<br>0.29 | 1.87<br>1.65<br>1.98           |

<sup>&</sup>lt;sup>1</sup> kg/1000 kkg (pounds per million pounds) of metal poured.

¹ kg/62.3 million Sm³ (pounds per billion SCF) of air scrubbed.

2 These concentrations must be multiplied by the ratio of (0.086/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 SCF of air scrubbed) for a specific plant.

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<sup>2</sup>These concentrations must be multiplied by the ratio of (1,320/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 pounds of metal poured) for a specific plant.

# (f) Melting Furnace Scrubber Operations.

#### **BAT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property    | Maximum for any 1 day   | Maximum for monthly average |  |
|------------------------------------|---|-----------------------------|--|
|                                    | kg/62.3 million Sm³ (pounds<br>per billion SCF) of air scrubbed |                             |  |
| Copper (T)<br>Lead (T)<br>Zinc (T) | 1.81<br>1.25<br>1.79  | 0.988<br>0.612<br>0.673     |  |
| Total phenols                      | 2.02  | 0.706                       |  |

|  | Maximum<br>for any 1<br>day                         | Maximum<br>for monthly<br>average                  | Annual<br>average 1            |
|--|---|--|--------------------------------|
| Copper (T) Lead (T) Zinc (T) Total phenols | (mg/l) <sup>2</sup><br>0.77<br>0.53<br>0.76<br>0.86 | (mg/l) <sup>2</sup><br>0.42<br>0.26<br>0.29<br>0.3 | 0.4<br>0.353<br>0.424<br>0.471 |

<sup>&</sup>lt;sup>1</sup>kg/62.3 million Sm<sup>3</sup> (pounds per billion SCF) of air scrubbed.

<sup>2</sup>These concentrations must be multiplied by the ratio of

#### (g) Mold Cooling Operations.

#### **BAT EFFLUENT LIMITATIONS**

| Pollutant or pollutant property    | Maximum for any 1 day                                       | Maximum for monthly average |  |
|------------------------------------|---|-----------------------------|--|
|                                    | kg/1,000 kkg (pounds per<br>million pounds) of metal poured |                             |  |
| Copper (T)<br>Lead (T)<br>Zinc (T) | 0.392<br>0.27<br>0.387                                      | 0.214<br>0.132<br>0.148     |  |

|            | Maximum<br>for any 1<br>day | Maximum for monthly average | Annual av-<br>erage 1 |
|------------|-----------------------------|-----------------------------|-----------------------|
|            | (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>         |                       |
| Copper (T) | 0.77                        | 0.42                        | 0.0865                |
| Lead (T)   | 0.53                        | 0.26                        | 0.0763                |
| Zinc (T)   | 0.76                        | 0.29                        | 0.0916                |

<sup>&</sup>lt;sup>1</sup> kg/1,000 kkg (pounds per million pounds) of metal poured.
<sup>2</sup> These concentrations must be multiplied by the ratio of (61/k) where x is the actual normalized process wastewater flow (in gallons per 1,000 pounds of metal poured) for a specific plant.

[50 FR 45247, Oct. 30, 1985; 51 FR 21761, June 16, 1986]

# § 464.24 New source performance standards.

Any new source subject to this subpart must achieve the following new source performance standards (NSPS), except that non-continuous dischargers shall not be subject to the maximum day and maximum for monthly average mass (kg/1,000 kkg or lb/million lb of metal poured; kg/62.3 million Sm3 or lb/ billion SCF of air scrubbed) effluent standards for copper, lead, zinc, total phenols, oil and grease, and TSS. For non-continuous dischargers, annual average mass standards and maximum day and maximum for monthly average concentration (mg/l) standards shall apply. Concentration standards and annual average mass standards shall only apply to non-continuous dischargers.

# (a) Casting Quench Operations.

### **NSPS**

| Pollutant or pollutant property | Maximum for any 1 day  | Maximum for monthly average |  |
|---------------------------------|--|-----------------------------|--|
|                                 | kg/1,000 kkg (pounds per mil<br>lion pounds) of meta<br>poured |                             |  |
| Copper (T)                      | 0.0307   | 0.0168                      |  |
| Lead (T)                        | 0.0211   | 0.0104                      |  |
| Zinc (T)                        | 0.0303   | 0.0116                      |  |
| Oil and grease                  | 1.2  | 0.399                       |  |
| TSS                             | 0.598  | 0.479                       |  |
| pH                              | (¹)  | ( <sup>1</sup> )            |  |

<sup>&</sup>lt;sup>1</sup> Within the range of 7.0 to 10.0 at all times.

|                | Maximum<br>for any 1<br>day | Maximum<br>for monthly<br>average | Annual<br>average <sup>1</sup> |
|----------------|-----------------------------|-----------------------------------|--------------------------------|
|                | (mg/l) <sup>2</sup>         | (mg/l) <sup>2</sup>               |                                |
| Copper (T)     | 0.77                        | 0.42                              | 0.0068                         |
| Lead (T)       | 0.53                        | 0.26                              | 0.006                          |
| Zinc (T)       | 0.76                        | 0.29                              | 0.0072                         |
| Oil and grease | 30                          | 10                                | 0.199                          |
| TSS            | 15                          | 12                                | 0.104                          |
| pH             | (3)                         | (3)                               | (3)                            |

 $<sup>^1\,\</sup>text{kg/1,000}$  kkg (pounds per million pounds) of metal poured.  $^2$  These concentrations must be multiplied by the ratio of (4.8/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 pounds of metal poured) for a specific plant.

# (b) Direct Chill Casting Operations.

<sup>&</sup>lt;sup>2</sup>These concentrations must be multiplied by the ratio of (0.282/x) where x is the actual normalized process wastewater flow (in gallons per 1,000 SCF of air scrubbed) for a specific plant.

<sup>&</sup>lt;sup>3</sup> Within the range of 7.0 to 10.0 at all times.